

IAP15 Rec'd PCT/PTO 17 JAN 2006

Attorney Docket No. 1454.1666

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Robert FISCHER et al.

Application No.:

Group Art Unit:

Filed: (Concurrently)

Examiner:

For: NONLINEAR PRECODING METHOD FOR A DIGITAL BROADCAST CHANNEL

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 CFR § 1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the subject application.

## 1. Enclosures accompanying this Information Disclosure Statement are:

- 1a. ☒ Form PTO-1449.
- 1b. ☒ Copy(ies) of IDS citation(s), except for U.S. Patents and U.S. Patent Application publications.
- 1c. ☒ English language copy of a communication(s) from a foreign Patent Office or a PCT International Search Report.
- 1d. ☐ English language translation (complete, Abstract or relevant portion(s)) attached to non-English language publications as indicated on the attached Form PTO-1449.
- 1e. ☐ Explanations of Relevancy of References (ATTACHMENT 1(e), hereto) for providing a concise explanation of non-English publications.
- 1f. ☐ List of Copending Applications (ATTACHMENT 1(f), hereto).
- 1g. ☒ List of Additional Submitted Documents (ATTACHMENT 1(g), hereto).

2. ☐ In accordance with 37 CFR § 1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is

(Check appropriate Items 2a, 2b, 2c and/or 2d)

- 2a. ☐ satisfied for the non-English language publication(s) cited on the enclosed "English language version of the search report or action which indicates the degree of relevance found by the foreign office". (See MPEP § 609,

Minimum Requirements for an Information Disclosure Statement, Part A(3):  
Concise Explanation of Relevance, 8th Ed., Rev. 2)

- 2b. ☐ set forth in the application.
- 2c. ☐ satisfied for the non-English language publication(s) indicated on the attached PTO-1449 as having an English language translation (complete, Abstract or relevant portion(s)) attached thereto.
- 2d. ☐ enclosed as Attachment 1(e), hereto.
3. No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than search report(s) from a counterpart foreign application or a PCT International Search Report, if submitted herewith). 37 CFR §§ 1.97(g) and (h).

Respectfully submitted,

STAAS & HALSEY LLP

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IAP15 Rec'd PCT/PTO 17 JAN 2006

FORM PTO-1449  <b>INFORMATION DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY DOCKET NO.	APPLICATION NO.
		1454.1666	10/564832
		FIRST NAMED INVENTOR	
		Robert FISCHER	
		FILING DATE	GROUP ART UNIT
		(Concurrently)	

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NO.	DATE	COUNTRY	TRANSLATION YES NO	ABSTRACT
	AG					
	AH					
	AI					
	AJ					

**OTHER REFERENCES (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

	AK	C. WINDPASSINGER et al.; "Low-Complexity Near-Maximum - Likelihood Detection and Precoding for MIMO Systems using Lattice Reduction", ITW2003, Paris France, March 31-April 3, 2003, pp. 345-348.	TRANSLATION YES NO
	AL	R. F. H. FISCHER et al.; "MIMO Precoding for Decentralized Receivers", Proceedings 2002 IEEE Int'l Symposium on Information Theory, June 30-July 5, 2002, p. 496.	
	AM	W. YU et al.; "Trellis Precoding for the Broadcast Channel", Globecom '01, 2001 IEEE Global Telecom Conference, Nov. 25-29, 2001, Vol., 2 of 6, pp. 1344-1348.	
EXAMINER		DATE CONSIDERED	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

## ATTACHMENT 1(g)

<b>LIST OF ADDITIONAL SUBMITTED DOCUMENTS</b>	ATTORNEY DOCKET NO.	APPLICATION NO.
	1454.1666	10/564832
	FIRST NAMED INVENTOR	
	Robert FISCHER et al.	
	FILING DATE	GROUP ART UNIT
	(Concurrently)	

The following document(s) is/are listed in accordance with the duty of disclosure provisions of 37 CFR § 1.56, so that the Examiner may consider same should he deem any thereof to be material to examination of the subject application.

It is requested that the Examiner acknowledge his consideration of document(s) below-listed by initialling same in the space provided adjacent each such application and that the Examiner sign and date this form at the bottom thereof to confirm such consideration having been given.

This submission in no way represents an admission that any of the information listed herein constitutes prior art with respect to the subject application; and unless and until such prior art status is established, this submission is not a request that the information presented herein be printed on the face of any patent issuing from the subject application in which this information is being filed.

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO
	AC							
	AD							

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

						TRANSLATION	
						YES	NO
	AE	International Search Report for International Application No. PCT/DE2004/001455 mailed November 11, 2004					

EXAMINER	DATE CONSIDERED
<p>*EXAMINER: Initial if document considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>	